IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	: 10/805,326	Confirmation No.	: 9091
First Named Inventor	: Robert GRIESSBACH		
Filed	: March 22, 2004		
TC/A.U.	: 2114		
Examiner	: L. Truong		
Docket No.	: 080437.53193US		
Customer No.	: 23911		
Title	: Method of Transmitting Messages Between Bus Users		

AMENDMENT AFTER FINAL UNDER 37 C.F.R. §1.116

Mail Stop AF
Commissioner for Patents
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Sir:

The following proposed amendments and remarks are respectfully submitted in response to the final Office Action dated April 19, 2007.

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims beginning on page 3 of this paper.

Remarks begin on page 8 of this paper.

Amendments to the Specification:

Please amend the specification as follows:

Please replace paragraph [0012] with the following amended paragraph:

Referring to the figure, by means of the data bus, the condition of a switch 1, which is connected to a control unit 2, is to be reported to another control unit 3 [[4]]. The control units 2 and 3, as well as another control unit 4, are connected to a communication bus 6, and likewise a gateway 5. By way of the gateway 5, each control unit 2, 3, 4 can be addressed by way of a diagnostic tester 8.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of transmitting messages between a plurality of bus users, each of which is connected with a communication bus for exchanging messages, the method comprising the acts of:

conducting a message transmission between first and second bus users in a normal operation mode; and

for diagnosing the message transmission, operating in a diagnostic operating mode that differs from the normal operation mode and includes the acts of:

requesting, by a diagnostic device uninvolved in the message transmission during the normal operation mode, the second bus user to output on the communication bus ~~a message intended for the second bus user in~~ the message transmission;

detecting a disturbance when the diagnostic device does not receive the message transmission or receives a damaged message transmission from the second bus user via the communication bus; and

determining, by the diagnostic device, whether a source of the disturbance is in the first bus user or in the second bus user.

2. (Currently amended) The method according to claim 1, further comprising the acts of:

in the diagnostic operating mode, causing a third bus user, different from the first and second bus users, to receive the message transmission to ~~intended for~~ the second bus user when the second bus user does not output the [[a]] message transmission or outputs a damaged message transmission; and

comparing message statuses from the three bus users to determine the source of a disturbance.

3. (Original) The method according to claim 1, wherein messages are transmitted between more than two bus users, the method further comprising the act of reading-out the status of the message for all bus users participating in the message transmission in an operating mode differing from the normal operation.

4. (Currently amended) The method according to claim 1 [[2]], wherein the conducting includes conducting a message transmission from the first bus user to a plurality of bus users, and wherein the determining ~~comparing~~ includes comparing message statuses for all bus users participating in the message transmission in an operating mode differing from the normal operation.

5. (Original) The method according to claim 3, wherein the bus users participating in the message transmission are read-out of a table.

6. (Original) The method according to claim 4, wherein the bus users participating in the message transmission are read-out of a table.

7. (Currently amended) A diagnostic method for messages transmitted between first and second bus users, in which said bus users are each linked with a communication bus for purposes of exchanging messages and with a diagnostic device for detecting a failure of a message transmission ~~the communication bus~~, the method comprising:

in a diagnostic operation mode that is different from a normal operation mode, requesting, by the diagnostic device, the second bus user to

output to the communication bus a message transmission ~~intended for transmission~~ from the first bus user to the second bus user during the normal operation mode, thereby diagnosing the message transmission, wherein the diagnostic device is uninvolved in the ~~intended~~ message transmission during the normal operation mode.

8. (Currently amended) The method according to claim 7, further comprising:

in the diagnostic operation mode, causing a third bus user to receive the message transmission; and

comparing message statuses from each of the three bus users to determine a source of the failure.

9. (Currently amended) The method according to claim 8, further comprising:

determining the source of the failure ~~fault~~ to be in the first bus user when the message statuses from the second and third bus users are the same; and

determining the source of the failure ~~fault~~ to be in the second bus user when the message statuses from the first ~~second~~ and third bus users are the same and the message status of the second bus user is different.

10. (Currently amended) The method according to claim 2, wherein the comparing comprises:

determining that the source of the disturbance ~~fault~~ is in the first bus user when the message statuses from the second and third bus users are the same; and

determining that the source of the disturbance ~~fault~~ is in the second bus user when the message statuses of the first ~~second~~ and third bus users are the same and the message status of the second bus user is different.

REMARKS

Claims 1, 2, 4 and 7-10 have been amended. Claims 1-10 remain pending in the application. A minor reference number correction has been made in paragraph 12 of the specification. Reconsideration and withdrawal of the final rejection are respectfully requested.

Applicant gratefully acknowledges the indicated allowability of claims 1-10 if clarified to overcome the 35 U.S.C. § 112 rejections. Accordingly, as the foregoing amendments address these rejections, it is respectfully requested that all claims are now in condition for allowance.

In particular, the Office Action rejected claims 1-10 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The Examiner referenced paragraphs 7 and 8 of the specification in stating that "in normal operating mode, using the diagnostic device, the bus user normally receiving the message can be caused to output the message....". Applicant respectfully submits, however, that the specification clearly states otherwise. The diagnostic device has a diagnostic operating mode that differs from the normal operation. Indeed, paragraph 7 in particular, states that "in an operating mode *which differs from the normal operation, using the diagnostic device,* of the bus user..." (emphasis added). This is also clear from paragraph 6, which confirms that the diagnostic operating mode is different from the normal operation, for the diagnosis of a message transmission. Hence, Applicant

respectfully submits independent claims 1 and 7 are fully enabled by the written description.

In that regard, it should be pointed out that independent claims 1 and 7 recite methods for detecting a disturbance (claim 1) and diagnosing a message transmission (claim 7). The dependent claims further specify the diagnosis of the source of the disturbance or failure.

In the Office Action, claims 1-10 were additionally rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. In particular, the Examiner objected to the use of the language "intended" recited in claims 1, 2 and 7. Accordingly, Applicant has amended these claims to delete this language in order to prevent any confusion. Hence, all claims are now submitted to be definite and in compliance with the restrictions of 35 U.S.C. § 112.

In view of the foregoing, Applicant respectfully requests the allowance of claims 1-10. An early notice to that effect is solicited.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 080437.53193US).

Respectfully submitted,

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